

C L A I M S :

(substitute sheet)

1. A process for performing a catalyzed chemical reaction of starting materials using an amorphous microporous membrane, characterized in that said starting materials are pressed through the pores of said membrane containing catalytically active components, wherein the diameters of said pores are not larger than twice the diameter of the molecules of said starting materials, and the overall distribution of pore diameters has a half-width of  $< 0.3$  nm.
2. The process according to claim 1, wherein said pore diameter is between 0.5 and 5 nm.
3. The process according to claim 1, wherein the thickness of the amorphous layer of said membrane is  $< 10$   $\mu\text{m}$ , preferably  $< 2$   $\mu\text{m}$ .

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